# SCANDINAVIAN JOURNAL OF Gastroenterology

Volume 25, 1990 January 1990 – December 1990

UNIVERSITETSFORLAGET
OSLO, NORWAY

# SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY

Scandinavian Journal of Gastroenterology is the scientific periodical for Dansk Gastroenterologisk Selskab, Finsk Gastroenterologisk Förening, Islandsk Gastroenterologisk Forening, Norsk Gastroenterologisk Forening, and Svensk Förening for Gastroenterologi.

# **EDITORS**

E. Gjone, Editor-in-Chief, Oslo I. Ihse, Lund O. Kronborg, Odense E. Oddsson, Revkjavik O. Søreide, Bergen K. Varis, Helsinki

# ASSOCIATE EDITORS

L. E. Hanssen and E. Schrumpf, Oslo

# FOUNDING EDITOR

J. Myren

### EDITORIAL BOARD

H. Baden, Copenhagen F. Barány, Stockholm A. Berstad, Bergen B. Borgström, Lund P. Brandtzaeg, Oslo P. Burhol, Tromsø

J.-A. Chayvialle, Lyon W. Domschke, Erlangen G. Dotevall, Gothenburg

K. Einarsson, Huddinge K. Elgio, Oslo

S. Emås, Stockholm O. Fausa, Oslo C. Fenger, Odense R. Håkanson, Lund

H. F. Helander, Mölndal F. W. Henriksen, Copenhagen L. Olbe, Gothenburg

J. H. Henriksen, Copenhagen B. I. Hirschowitz, Birmingham, D. W. Piper, St. Leonards Ala.

K. Höckerstedt, Helsinki J. J. Holst, Copenhagen

G. Järnerot, Örebro

S. J. Jiang, Shanghai

A.-L. Karvonen, Tampere E. Kivilaakso, Helsinki

S. J. Konturek, Cracow E. Krag, Copenhagen

U. Krause, Uppsala U. F. Malt, Oslo J. Martinson, Varberg

N. McIntyre, London A. I. Mendeloff, Baltimore T. Midtvedt, Stockholm

T. Miettinen, Helsinki P. B. Mortensen, Copenhagen M. L. Nielsen, Copenhagen

K. Nygaard, Oslo L. M. Nyhus, Chicago K. Okuda, Chiba City

H. Petersen, Trondheim

J. Rask-Madsen, Copenhagen S. N. Rasmussen, Aalborg P. Riis, Herlev

S. Ritland, Drammen S. Rune, Glostrup

M. Salaspuro, Helsinki H. Schiønsby, Oslo

K. Seppälä, Espoo A. Serck-Hanssen, Oslo Sheila Sherlock, London

P. Sipponen, Helsinki R. Sjödahl, Linköping

T. Solomon, Kansas City, Mo. T. Sørensen, Copenhagen

J. Stadaas, Oslo

C.-G. Standertskjöld-Nordenstam, Helsinki K. Svanes, Bergen

R. K. Tandon, New Delhi E. Hess Thaysen, Aalborg G. N. J. Tytgat, Amsterdam

B. Uvnäs, Stockholm M. H. Vatn, Oslo

F. Vilardell, Barcelona K. G. Wormsley, Dundee H. Worning, Glostrup

SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY (ISSN 0036-5521) is published monthly by Universitetsforlaget AS (Norwegian University Press). Supplements are supplied free of charge to subscribers, and copies may also be purchased on application to the publishers. Annual subscription price for 1990 is USD 380.00 for the rest of the world and NOK 2100 for the Nordic countries, to be paid in advance. This journal can be ordered in microform from University Microfilms International, 300 N. Zeeb Rd., Dept. P.R., Ann Arbor, MI 48106, USA. Air freight and mailing in the USA by Publications Expediting Inc. Second-class postage paid at Jamaica, NY 11431. U.S. Postmaster: send address changes to Scandinavian Journal of Gastroenterology, c/o Publications Expediting Inc., 200 Meacham Ave., Elmont, NY 11003, USA.

# EDITORIAL CORRESPONDENCE

Manuscripts should be addressed to The Editors, Scandinavian Journal of Gastroenterology, Medical Dept. A, Rikshospitalet, N-0027 Oslo 1, Norway. The editors have no objection to the reproduction of short passages and illustrations from this journal without further formality than acknowledgement of the source.

## **PUBLISHERS**

Business communications, including subscriptions and orders for offprints or advertisements, should be sent to Universitetsforlaget AS, P.O. Box 2959 Tøyen, 0608 Oslo 6, Norway, U.S. address: c/o Publications Expediting Inc. (see above).

© 1990 Universitetsforlaget AS (Norwegian University Press). Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Universitetsforlaget for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$3.00 per copy is paid directly to CCC, 27 Congress Street, Salem, MA 01970, USA. 0036-5521/90/\$3.00. All other rights, including microfilm, reserved.



No. 1		
Review: Liver Transplantation Today Survival after Liver Transplantation of Patients with Primary Biliary Cirrhosis in the Nordic Countries. Comparison with Expected Survival in Another Series of Transplantations and in an International Trial of Medical Treatment	K. Höckerstedt S. Keiding, BG. Ericzon, S. Eriksson, A. Flatmark, K. Höckerstedt, H. Isoniemi, I. Karlberg, N. Keiding, R. Olsson, K. Samela,	111
Effects of Heat-Stable Escherichia coli Enterotoxin on Intes- tinal Alkaline Secretion and Transepithelial Potential Dif- ference in the Rat Intestines in Vivo	E. Schrumpf & C. Söderman M. H. Tantisira, M. Jodal & O. Lundgren	19
Action of Neurotensin on Meal-Stimulated Gastric Acid Secretion in the Dog	V. E. Eysselein, W. H. Hesse, G. A. Eberlein, C. Koelbel, W. Niebel & H. Goebell	29
Plasma Prekallikrein as a Prognostic Indicator in Chronic Liver Insufficiency	J. Agnholt, J. H. Mikkelsen, M. i Bud, J. Møller-Petersen, S. N. Rasmussen & J. Dverberg	40
Effect of Intraduodenal Bile and Na-Taurodeoxycholate on Exocrine Pancreatic Secretion and on Plasma Levels of Secretin, Pancreatic Polypeptide, and Gastrin in Man	R. L. Riepl, P. Lehnert, A. Scharl, I. Hempen, F. Fiedler, J. Teufel & P. G. Burhol	45
Distribution of HLA-DR, HLA-DP, HLA-DQ Antigens in Liver Tissue from Patients with Primary Sclerosing Chol- angitis	U. Broomé, H. Glaumann, R. Hultcrantz & U. Forsum	54
The Role of Mucosal Prostaglandin Levels in Healing of Water Immersion-Induced Gastric Ulcers in Rats	M. Kuroiwa, S. Sugiyama, H. Goto, Y. Tsukamoto, S. Nakazawa & T. Ozawa	59
Brown-Bowel Syndrome. Review of the Literature and Presentation of Cases	T. Horn, L. B. Svendsen & R. Nielsen	66
Attenuation of Gastric Sham Feeding Response during Reflex Sympathetic Activation in Man	H. Sjövall, H. Forssel, J Häggendal & L. Olbe	73
The Benefit of Colonoscopy	E. Brenna, K. Skreden, H. L. Waldum, R. Mårvik, J. H. Dybdahl, P. M. Kleveland, A. K. Sandvik, T. Halvorsen, H. E. Myrvold & H. Petersen	81
Identification of the Neurotransmitter/Neuromodulator Functions of the Neuropeptide Gastrin-Releasing Peptide in the Porcine Antrum, Using the Antagonist (Leu <sup>13</sup> -ψ-CH <sub>2</sub> NH-Leu <sup>14</sup> )-Bombesin	J. J. Holst, H. Harling, T. Messell & D. H. Coy	89
No. 2		
Review: The Influence of Pregnancy and Contraceptive Steroids on the Biliary Tract and Its Reference to Chol- esterol Gallstone Formation	G. Rådberg, S. Friman & J. Svanvik	97
Inhibition of Gastric Acid Secretion by Jejunal Glucose and Its Relation to Osmolality and Glucose Load	J. Holst Pedersen, J. Christiansen, J. J. Holst, T. Krarup, K. Hint & N. Palmgren	103
Liver Regeneration and Restoration of Liver Function after Partial Hepatectomy in Patients with Liver Tumors	P. L. M. Jansen, R. A. F. M. Chamuleau, D. J. van Leeuwen, H. G. Schipper, E. Busemann-Sokole & M. N. van der Heyde	112

Factors of Prognostic Importance in Primary Biliary Cirrhosis	A. Rydning, E. Schrumpf, M. Abdelnoor, K. Elgjo & E. Jenssen	119
Acridine Orange Fluorescence, Campylobacter pylori, and Chronic Gastritis	B. Langdale-Brown & M. T. Haqqani	127
Hydrolysis of Phosphatidylinositol by Human Pancreatic Phospholipase A <sub>2</sub>	H. Barros, B. Sternby & Å. Nilsson	134
DNA Ploidy, Tumour Site, and Prognosis in Colorectal Cancer. A Flow Cytometric Study of Paraffin-Embedded Tissue	T. B. Halvorsen & E. Johannesen	141
Alterations in C1 Inhibitor and Clotting Factor Concentrations in Primary Biliary Cirrhosis and Other Chronic Liver Diseases	Å. Danielsson, T. K. Nilsson & P. Uddenfeldt	149
The Prevalence of Gallstone Disease in a Dutch Population	C. Thijs, P. Knipschild & J. van Engelshoven	155
Duodenogastric Bile Reflux before and after Selective Proxi- mal Vagotomy with and without Pyloroplasty	B. Eriksson, T. Szegő & S. Emås	161
Thickness of Brunner's Glands and Its Clinical Significance in Duodenal Ulcer Disease	Y. Fuse, Y. Tsuchihashi, M. Takamasu, T. Kodama, S. Fujita & K. Kashima	165
Morphologic Changes in the Small Intestine after Chronic Alcohol Consumption	J. Persson, N. O. Berg, K. Sjölund, R. Stenling & PH. Magnusson	173
Effect of Gastrectomy with Either Roux-en-Y or Billroth II Anastomosis on Small-Intestinal Function	P. N. M. A. Rieu, J. B. M. J. Jansen, H. J. M. Joosten & C. B. H. W. Lamers	185
No. 3		
Review: Chronic Gastritis and Ulcer Risk Non-Steroidal Anti-Inflammatory Drugs and Gastric DNA Synthesis	P. Sipponen M. Myszor & H. J. F. Hodgson	193 197
Characteristics of Immune-Complex-Induced Chronic Experimental Colitis in Rats with a Therapeutic Effect of Sulphasalazine	LG. Axelsson & S. Ahlstedt	203
Phosphate Transport Adaptation in Rat Jejunum and Plasma Level of 1,25-Dihydroxyvitamin D <sub>3</sub>	G. Danisi, J. Caverzasio, U. Trechsel, J. P. Bonjour & R. W. Straub	210
Digital Ambulatory Monitoring of Small-Bowel Motility	G. Lindberg, M. Iwarzon, P. Stål & R. Seensalu	216
Ambulatory 24-Hour pH-Metry in the Diagnosis of Gastro- esophageal Reflux Disease. Determination of Criteria and Relation to Endoscopy	A. A. M. Masclee, A. C. A. M. De Best, R. De Graaf, O. J. J. Cluysenaer & J. B. M. J. Jansen	225
Endoscopic Findings in the Stomach and Duodenum after Treatment with Enteric-Coated and Plain Naproxen Tablets in Healthy Subjects	E. Oddsson, H. Gudjonsson & B. Thjodleifsson	231
Feasibility and Effectiveness of a Defined-Formula Diet Regimen in Treating Active Crohn's Disease. European Cooperative Crohn's Disease Study III	H. Malchow, H. J. Steinhardt, H. Lorenz-Meyer, W. D. Strohm, S. Rasmussen, H. Sommer, S. Jarnum, J. W. Brandes, H. Leonhardt, K. Ewe & H. Jesdinsky	235
Atypical Coeliac Disease Found with Serologic Screening	P. Collin, O. Hällström, M. Mäki, M. Viander & O. Keyriläinen	245

Utility of Ascitic Fluid Analysis in Patients with Malignancy- Related Ascites	F. Salerno, B. Restelli, P. Incerti, G. Annoni, L. Capozza, S. Badalamenti,	251
	P. Lampertico, E. Mojana, P. Moser & M. Tommasini	
Trends in and Value and Consequences of Radiologic Imaging of Perforated Gastroduodenal Ulcer. A 50-Year Experience	C. Svanes, H. Salvesen, T. Bjerke Larssen, K. Svanes & O. Søreide	257
Alterations in Body Composition after Gastroplasty for Mor- bid Obesity	M. E. Zimmerman, H. Andersson, L. Lundell & L. Olbe	263
Influence of Jejunal Hypertonic Glucose Infusion on Sham- Feeding-Stimulated Gastric Acid Secretion: Evidence of a Defective Mechanism in Duodenal Ulcer Patients	C. A. Linares, J. M. Carosella, A. Banchero, A. Correa, A. B. Merlo, E. Gomez & C. A. Falasca	269
Effect of Calcium Deficiency on Vitamin $B_{12}$ Absorption in Rats	Ø. Bergesen, H. Schjønsby & L. Schjerven	276
Polyps in the Gallbladder. A Prevalence Study	T. Jørgensen & K. Hougaard Jensen	281
Measurements of Serum IgA and IgG Activities to Dietary Antigens. A Prospective Study of the Diagnostic Usefulness in Adult Coeliac Disease	H. Scott, O. Fausa, J. Ek, K. Valnes, L. Blystad & P. Brandtzaeg	287
Telenzepine, a New M <sub>1</sub> -Receptor Antagonist, Is a More Potent Inhibitor of Pentagastrin-Stimulated Gastric Acid Output Than Pirenzepine in Dogs	G. Holtmann, U. Küppers & M. V. Singer	293
Effect of Pancreatic Enzymes in Non-Ulcer Dyspepsia. A Pilot Study	P. M. Kleveland, T. Johannessen, P. Kristensen, I. Løge, P. Sandbakken, J. Dybdahl & H. Petersen	298
Lipoma of the Liver: Computed Tomographic, Ultrasono- graphic, and Cytologic Findings	W. Langsteger, P. Lind, G. H. Schneider, P. Költringer, A. Beham & O. Eber	302
Hepatobiliary Compensation for the Loss of Gallbladder Function after Cholecystectomy. An Experimental Study in the Cat	S. Friman, G. Rådberg, I. Bosaeus & J. Svanvik	307
Low-Dose Antacids versus 400 mg Cimetidine Twice Daily for Reflux Oesophagitis. A Comparative, Placebo-Controlled, Multicentre Study	P. G. Farup, R. Weberg, A. Berstad, S. Wetterhus, O. Dahlberg, J. Dybdahl, G. Fyllingen, K. S. Kannelønning & O. J. Lange	315
No. 4		
Review: Abnormal Intestinal Permeability in Crohn's Disease. A Posible Pathogenic Factor	G. Olaison, R. Sjödahl & C. Tagesson	321
Exercise-Induced Hyperammonemia in Patients with Compensated Chronic Liver Disease	R. Dietrich, C. Bachmann & B. H. Lauterburg	329
The Epidemiology of Gallstones in a 70-Year-Old Danish Population	T. Jørgensen, L. Kay & K. Schultz-Larsen	335
Cyclic Nucleotide Concentrations of Rectal Mucosa in Ulcer- ative Colitis	A. R. Zlatkina, E. A. Belousova, L. I. Vinitsky, G. G. Avtandilov & L. V. Chervonnaya	341
Fecal Excretion of Radiolabeled (51CrCl <sub>3</sub> ) Proteins in Patients with Crohn's Disease	S. Nordgren, R. Hellberg, Å. Cederblad, S. Fasth, G. Lindstedt & L. Hultén	345

Propranolol May Prevent Recurrence of Oesophageal Varices after Obliteration by Endoscopic Sclerotherapy	L. S. Jensen & N. Krarup	352
Gastric Histology and Function Tests in Italian Patients with Dermatitis Herpetiformis	M. Primignani, D. Agape, G. Ronchi, L. Forzenigo, C. Bonato, P. Meroni, M. Falsitta, A. Malesci & R. de Franchis	357
Phospholipase C from <i>Clostridium perfringens</i> Stimulates Phospholipase A <sub>2</sub> -Mediated Arachidonic Acid Release in Cultured Intestinal Epithelial Cells (INT 407)	C. Gustafson & C. Tagesson	363
Effect of Topical Acid on Pepsinogen Secretion in Man Gastric Mucosal Bleeding after Unfractionated and Low Mol- ecular Weight Heparin in Rats	J. L. Smith & E. L. Torres C. J. Bang, A. Berstad & I. Talstad	372 379
Detection of Human Papillomavirus DNA in Cytologic Speci- mens Derived from Esophageal Precancer Lesions and Cancer	F. Chang, Q. Shen, J. Zhou, C. Wang, D. Wang, S. Syrjänen & K. Syrjänen	383
Bile Acid Pool Size and Gallbladder Storage Capacity in Gallstone Disease	K. Nilsell	389
Influence of the Degree of Liver Failure on Portal Blood Flow in Patients with Liver Cirrhosis	N. Ljubičić, M. Duvnjak, I. Rotkvić & B. Kopjar	395
Prevalence of Gallstones at Autopsy at the Institutes of For- ensic Medicine in Aarhus and Copenhagen, Denmark, in 1944–1985	D. Teilum	401
Effect of Bile on Peritoneal Morphology in Escherichia coli Peritonitis	R. Andersson, R. Willén, G. Massa, KG. Tranberg, B. Carlén & S. Bengmark	405
Peripheral Bone Mineral Content in Patients with Fatty Liver and Hepatic Cirrhosis	H. Resch, P. Pietschmann, E. Krexner, W. Woloszczuk & R. Willvonseder	412
No. 5		
Review: Photodynamic Therapy in Gastroenterology	P. Puolakkainen, J. Rämö & T. Schröder	417
The Effects of Ammonia Tolerance Tests on the Cerebro- spinal Fluid Concentrations of Amino Acids and Indole- amines in Patients with Liver Cirrhosis	T. Jonung, B. Jeppsson, P. Herlin, A. Nobin & B. Hultberg	422
Comparison of Blood Flow Measurements by Hydrogen Gas Clearance and Laser Doppler Flowmetry in the Rat Duo- denum	F. W. Leung	429
Perioperative Blood Transfusion and Recurrence and Death after Resection for Cancer of the Colon and Rectum	E. B. Jakobsen, J. H. Eickhoff, J. Andersen, L. Lundvall & J. K. Stenderup	435
Visual Analogue Scales for Endoscopic Evaluation of Non- steroidal Anti-Inflammatory Drug-Induced Mucosal Damage in the Stomach and Duodenum	L. Aabakken, S. Larsen & M. Osnes	443
Effect of Glucagon-Like Peptide-1 on Gastric Somatostatin and Gastrin Secretion in the Rat	R. Eissele, H. Koop & R. Arnold	449
The Effect of Vagotomy and Antrectomy on Serum Pep- sinogens I and II	A. Peetsalu, A. Tamm, M. Härkönen, K. Varis, P. Sipponen, SL. Karonen, T. Väli & K. Villako	455
Evaluation of Pancreatic Tissue Fluid Pressure and Pain in Chronic Pancreatitis. A Longitudinal Study	N. Ebbehøj, L. Borly, J. Bülow, S. G. Rasmussen & P. Madsen	462
Effect of Bolus Volume on the Response of the Human Esophagus to a Viscous Bolus	C. R. Bilder, C. P. Dooley & J. E. Valenzuela	467

Effects of Endogenous and Exogenous Cholecystokinin and of Infusion with the Cholecystokinin Antagonist L-364,718 on Pancreatic and Gastrointestinal Growth	J. Axelson, R. Håkanson, I. Ihse, I. Lilja, J. F. Rehfeld & F. Sundler	471
Distribution of Neurotensin-Like Immunoreactivities in Por- cine and Human Gut	Y. Yamashita, J. Holst Pedersen & C. Palnæs Hansen	481
Ulcer Disease among Geriatric Inpatients with Positive Faecal Occult Blood Test and/or Iron Deficiency Anaemia. A Prospective Study	M. Wroblewski & H. Östberg	489
Suppression of Gastric Urease Activity by Antacids	K. Berstad, R. Weberg & A. Berstad	496
Prognostic Scores in Oesophageal or Gastric Variceal Bleed- ing	C. Ohmann, H. Stöltzing, L. Wins, E. Busch & K. Thon	501
Fasting Levels of Serum Gastrin in Different Functional and Morphologic States of the Antrofundal Mucosa. An Analysis of 860 Subjects	P. Sipponen, J. Valle, K. Varis, M. Kekki, T. Ihamäki & M. Siurala	513
Correlation between Fluorescein Flowmetry and Laser Dop- pler Flowmetry. A Study in the Intestine (Ileoanal Pouch) in Man	L. Perbeck, K. Lindquist, E. Proano & L. Liljeqvist	520
Rabbit Sphincter of Oddi Has a Certain Autonomy: Characteristic Features	H. Elbrønd, L. Østergaard & B. Huniche	525
Rabbit Sphincter of Oddi and Duodenum Are Regulated by Slow Waves with a Common Basic-Mode Activity	H. Elbrønd, B. Huniche & L. Østergaard	534
Preliminary Report: Serotonin Supersensitivity: The Patho- physiologic Basis of Non-Ulcer Dyspepsia? A Preliminary Report of Buspirone/Prolactin Responses	T. G. Dinan, L. N. Yatham, S. Barry, A. Chua & P. W. N. Keeling	541
No. 6 Special Article: Statistical Guidelines for Contributors to	E. Theodorsson, S. Larsen,	545
No. 6		
Scandinavian Journal of Gastroenterology Volume-Corrected Mitotic Index in Human Pancreatic	P. Riis & L. E. Hanssen P. K. Lipponen,	548
Cancer. Relation to Histologic Grade, Clinical Stage, and Prognosis	M. J. Eskelinen, Y. Collan, S. Marin & E. Alhava	540
Gastric Hemodynamic Disturbance Induced by Hemorrhagic Shock in Rats. Role of Platelet-Activating Factor	T. Binnaka, T. Yamaguchi, Y. Kubota, J. Hirohara, T. Mizuno & Y. Sameshima	555
Changes in Gastric Secretion after Intracerebroventricular Infusion of Bombesin in Dogs	K. G. Tsalis, J. G. Yovos, D. S. Botsios & J. D. Dadoúkis	563
Aetiology, Medical History, and Faecal Weight in Adult Patients Referred for Diarrhoea. A Prospective Survey	P. Bytzer, M. Stokholm, I. Andersen, B. Lund-Hansen & O. B. Schaffalitzky de Muckadell	572
Absorption of Oral Mesalazine-Containing Preparations and the Influence of Famotidine on the Absorption	EH. H. Wiltink, C. J. J. Mulder, L. M. L. Stolk, R. Rietbroek, C. Verbeek & G. N. J. Tytgat	579
The Function of the Intestinal Microflora in Patients with Ulcerative Colitis before and after Colectomy	CE. Leijonmarck, P. Benno, B. Carlstedt-Duke, U. Monsen, E. Norin, B. Poppen, H. Saxerholt & T. Midtvedt	585
Enzyme Activities in the Gastric Mucosa in Duodenal Ulcer Patients	K. Vetvik, E. Schrumpf, KJ. Andersen, B. Børkje, S. Ødegaard, D. W. Skagen &	594
	O. J. Halvorsen	

The Lower Esophageal Sphincter Shown by a Computerized Representation	W. A. Bemelman, V. P. M. van der Hulst, T. Dijkhuis, C. W. P. van der Hoeven &	601
Effect of Portal Hypertension and Duct Ligature on Pancreatic	P. J. Klopper N. Ebbehøj, L. Borly, K. J.	609
Fluid Pressures in Cats Changes in Uptake of Linoleic Acid and Cholesterol by Jejunal Sacs of Rats in Vitro, after Distal Small-Bowel Resection	Heyeraas & J. H. Henriksen M. T. Molina, V. Ruiz-Gutierrez, C. M. Vazquez & J. Bolufer	613
Terlipressin (Triglycyl-Lysine Vasopressin) Controls Acute Bleeding Oesophageal Varices. A Double-Blind, Ran- domized, Placebo-Controlled Trial	C. Söderlund, I. Magnusson, S. Törngren & L. Lundell	622
Biliary D-Glucaric Acid: Its Quantitation and Preventive Role in Gallstone Formation	YD. Ho & KJ. Ho	631
No. 7		
Review: Beta-Receptor Blocking Treatment in Portal Hyper- tension	R. Olsson	641
Study of 16,16-Dimethyl Prostaglandin E <sub>2</sub> for Prevention of Stress Ulcer after Hepatectomy of Experimental Cirrhotic Liver and Its Influence on Hepatic Regeneration	T. Urakawa, Y. Azumi, Y. Nagahata, S. Matsui, M. Nakamoto, K. Takeda, A. Itoh, T. Ichihara, H. Moritomo, H. Kuroda & Y. Saitoh	647
Hepatic Lesions in Adult Coeliac Disease	M. B. Jacobsen, O. Fausa, K. Elgjo & E. Schrumpf	656
Mesalazine (5-Aminosalicylic Acid) Suppositories in the Treatment of Ulcerative Proctitis or Distal Proctosig- moiditis. A Randomized Controlled Trial	M. Campieri, R. De Franchis, G. Bianchi Porro, T. Ranzi, G. Brunetti & L. Barbara	663
Reduced Insulin Secretion by Subtotal Pancreatectomy: Preservation of Insulin Sensitivity and Glucose Tolerance in Postoperative Patients	J. Magnússon, S. Bengmark & KG. Tranberg	669
The Potential Difference Response of the Human Gastric Mucosa to Cimetidine	B. Hempel Sparsø & M. Luke	676
Bile Acid Retention after Roux-en-Y Biliary Reconstruction Demonstrated by Tauro-23-(75Se)Selena-25-Homocholic Acid. An Experimental Animal Study	U. Bolder, R. Bares, G. Arlt, K. Hojabri & V. Schumpelick	681
The Predictive Value of History in Dyspepsia	T. Johannessen, H. Petersen, P. M. Kleveland, J. H. Dybdahl, A. K. Sandvik, E. Brenna & H. Waldum	689
Short-Chain Fatty Acid and Organic Acid Concentrations in Feces of Healthy Human Volunteers and Their Correlation with Anaerobe Cultural Counts during Systemic Ceftri- axone Administration	G. J. Meijer-Severs, E. van Santen & B. C. Meijer	698
Calcium Absorption after Intestinal Resection. The Importance of a Preserved Colon	E. Hylander, K. Ladefoged & S. Jarnum	705
Effect of Chronic Ursocholic Acid Administration on Bile Lipid Composition and Bile Acid Pool Size in Gallstone Patients	A. Lanzini, G. Pigozzi, D. Facchinetti, L. Bettini, M. Castellano, M. Beschi, A. Rossi & G. Muiesan	711
Gallbladder Stones Classified by Chemical Analysis of Cholesterol Content. Frederiksberg, 1987–1988	L. Ravnborg, D. Teilum & L. Rotbøl Pedersen	720
How Reliable Are the <sup>14</sup> C-Urea Breath Test and Specific Serology for the Detection of Gastric Campylobacter?	E. Husebye, D. O'Leary, V. Skar & K. Melby	725

Comparison of Loxiglumide, a Cholecystokinin Receptor Antagonist, and Atropine on Hormonal and Meal-Stimu- lated Pancreatic Secretion in Man	A. Gabryelewicz, E. Kulesza & S. J. Konturek	731
Does Sulfation of Gastrin Influence Gastric Acid Secretion in Man?	P. Cantor, M. Boye Petersen, J. Christiansen & J. F. Rehfeld	739
Erosive Prepyloric Changes in Patients with End-Stage Renal Failure Undergoing Maintenance Dialysis Treatment	J. Y. Kang, A. Wee, H. L. Choong & A. Y. T. Wu	746
Smoking and Inflammatory Bowel Disease: Comparison with Systemic Lupus Erythematosus. A Case-Control Study	C. Benoni, A. Nilsson & O. Nived	751
Comparison of Regional Pancreatic Tissue Fluid Pressure and Endoscopic Retrograde Pancreatographic Morphology in Chronic Pancreatitis	N. Ebbehøj, L. Borly, P. Madsen & P. Matzen	756
Myoelectric and Manometric Patterns of Human Recto- sigmoid Colon in Irritable Bowel Syndrome and Diver- ticulosis	M. Katschinski, P. Lederer, A. Ellermann, R. Ganzleben, G. Lux & R. Arnold	761
No. 8		
Review: 5-Hydroxytryptamine: New Receptors and Novel Drugs for Gastrointestinal Motor Disorders	B. Costall & R. J. Naylor	769
Heterozygous MZ Alpha-1-Antitrypsin Deficiency in Adults with Chronic Liver Disease	H. Bell, E. Schrumpf & M. K. Fagerhol	788
Noncardiac Chest Pain: Is the Esophagus Really a Frequent Source?	A. J. Limburg, H. Beekhuis, R. B. van Dijk & J. H. Kleibeuker	793
Structure and Function of Rat Parietal Cells during Treatment with Omeprazole, SCH 28080, SCH 32651, or Ranitidine	H. F. Helander, H. Mattsson, G. Elm & S. Ottosson	799
Pattern of Acid Reflux in Patients with Reflux Esophagitis 'Resistant' to H <sub>2</sub> -Receptor Antagonists	G. Bianchi Porro, F. Pace & O. Sangaletti	810
Effect of ABO Blood Group and Secretor Status on the Frequency of Helicobacter pylori Antibodies	J. Höök-Nikanne, P. Sistonen & T. U. Kosunen	815
The Inhibitory Effect of Bile on the Binding of Vitamin B <sub>12</sub> to Intrinsic Factor. An in Vivo Study in Rats	Ø. Bergesen, H. Schjønsby & L. Schjerven	819
Effects of Cholecystokinin and Cholinergic Receptor Block- ade on Guinea Pig Pepsinogen Secretion	M. D. Basson, T. E. Adrian & I. M. Modlin	825
Site-Specific Formation of Gastric Ulcers by the Electric Stimulation of the Left or Right Gastric Branch of the Vagus Nerve in the Rat	T. Okumura, A. Uehara, K. Okamura & M. Namiki	834
Bacterial Contamination of the Small Bowel Evaluated by Breath Tests, <sup>75</sup> Se-Labelled Homocholic-Tauro Acid, and Scanning Electron Microscopy	O. Suhr, Å. Danielsson, P. Hörstedt & R. Stenling	841
Inhibitory Effect of Galanin on Basal and Pentagastrin-Stimu- lated Gastric Acid Secretion in Rats	R. V. Yagci, N. Alptekin, W. J. Rossowski, A. Brown, D. H.Coy & A. Ertan	853
Nerve-Mediated Effect of Ethanol on Sodium and Fluid Transport in the Jejunum of the Rat	DA. Hallbäck, M. Eriksson & A. Sjöqvist	859
No. 9		
Pepsinogen Release and Acid Secretion from Human and Guinea Pig Gastric Mucosa Compromised by Hypoxia, Endotoxin, or Critical Illness	I. M. Modlin, M. D. Basson, T. E. Adrian & J. Sussman	865
Primary Malignant Non-Epithelial Tumours of the Thoracic Oesophagus and Cardia in a 25-Year Surgical Material	M. Trier Aagaard, I. Bayer Kristensen, O. Lund, J. M. Hasenkam & H. H. Kimose	876

		000
Regional Differences in Peripheral Circulation between Upper and Lower Extremity in Patients with Cirrhosis	H. Okumura, T. Aramaki, Y. Katsuta, H. Terada, K. Satomura, M. Akaike &	883
The Incidence of Ulcerative Colitis in Northern Norway from	T. Sekiyama S. Kildebo, K. Nordgaard,	890
1983 to 1986	O. Aronsen, R. Breckan, P. G. Burhol, R. Jorde & Other Members of the Northern Norwegian Gastroenterology Society	890
Calcium Absorption and Bone Mineral Content in Patients Subjected to Ileal Bypass because of Familial Hyper- cholesterolaemia	T. Rannem, E. Hylander, S. Jarnum, K. Ladefoged, O. Schaadt, M. Staun & M. Thale	897
Mumps, Enteroviruses, and Human Acute Pancreatitis	Z. G. Lászik, M. Kallajoki, T. Hyypiä, B. Rima, H. J. Aho & T. J. Nevalainen	906
Fat Inhibits Pentagastrin-Stimulated Acid Secretion from the Duodenum but Not from the Proximal Jejunum in Chronic Gastric Fistula Rats	C. Wallin & S. Emås	911
51Cr-Ethylenediaminetetraacetic Acid Absorption Test. Effects of Naproxen, a Non-Steroidal, Antiinflammatory Drug	L. Aabakken & M. Osnes	917
Enhanced Gastric and Duodenal Platelet-Activating Factor and Leukotriene Generation in Duodenal Ulcer Patients	Z. Ackerman, F. Karmeli, M. Ligumsky & D. Rachmilewitz	925
Gastrin in Non-Neoplastic Pancreatic Tissue from Patients with and without Gastrinomas	L. Bardram	935
Phospholipase A <sub>2</sub> Activity and Concentration in Several Body Fluids in Patients with Acute Pancreatitis	A. Mäkelä, B. Sternby, T. Kuusi, P. Puolakkainen & T. Schröder	944
Measurement of Splanchnic Circulation in Dogs: Changes Induced by Prostaglandin E <sub>1</sub>	R. Doi, K. Inoue, M. Kogire, S. Sumi & T. Tobe	951
Is Gluten Challenge Necessary for the Diagnosis of Coeliac Disease in Young Children?	L. Danielsson, L. Stenhammar & E. Åström	957
No. 10		
The Gestroenterology Prize for 1000		
The Gastroenterology Prize for 1990 The Aetiology of Gastric Stump Carcinoma in the Rat	R. Mason & I. Filipe	961
Cumulative 10-Year Risk of Symptomatic Duodenal and Gas- tric Ulcer in Patients with or without Chronic Gastritis. A Clinical Follow-up Study of 454 Outpatients	P. Sipponen, K. Varis, O. Fräki, UM. Korri, K. Seppälä & M. Siurala	966
Five-Year Cimetidine Maintenance Trial for Peptic Ulcer Disease. A Clinical and Endocrinologic Approach	G. N. J. Tytgat, W. Hameeteman, C. J. J. Mulder, W. Wiersinga, D. M. van de Boomgaard & J. Dees	974
Gene and Haplotype Frequencies of HLA Antigens in 269 Patients with Crohn's Disease	J. Purrmann, J. Bertrams, M. Knapp, S. Cleveland, KJ. Hengels, R. Gemsa & G. Strohmeyer	981
A Prospective Randomized Comparison of Two Different Pelvic Pouch Designs	T. Öresland, S. Fasth, S. Nordgren, T. Hallgren & L. Hultén	986

Different Effect of Helicobacter pylori on the Human Gastric Antral and Body Mucosal Intracellular Mucin	S. Kawano, M. Tsujii, K. Nagano, T. Ogihara, H. Tanimura, N. Hayashi, T. Ito, N. Sato, T. Kamada, K. Tamura & M. Tanaka	997
Effect of Metoclopramide on Portal Blood Flow in Patients with Liver Cirrhosis, Measured by the Pulsed Doppler System	N. Ljubičić	1004
The Occurrence and Extent of Helicobacter pylori Colonization and Antral and Body Gastritis Profiles in an Estonian Population Sample	HI. Maaroos, M. Kekki, K. Villako, P. Sipponen, A. Tamm & L. Sadeniemi	1010
Effect of Transcutaneous Nerve Stimulation on Esophageal Motility in Patients with Achalasia and Scleroderma	F. Mearin, P. Zacchi, J. R. Armengol, M. Vilardell & JR. Malagelada	1018
Palliation of Oesophagogastric Neoplasms with Nd:YAG Laser Treatment	S. Schulze & K. Fischerman	1024
Misoprostol Treatment Exacerbates Abdominal Discomfort in Patients with Non-Ulcer Dyspepsia and Erosive Pre- pyloric Changes. A Double-Blind, Placebo-Controlled, Multicentre Study	T. Hausken, G. Stene-Larsen, O. Lange, O. Aronsen, T. Nerdrum, F. Hegbom, T. Schulz & A. Berstad	1028
Protective Effect of S-Adenosyl-L-Methionine in Hepatic Uroporphyria. Evaluation in an Experimental Model	L. Cantoni, G. Budillon, R. Cuomo, S. Rodinò, C. Le Grazie, C. Di Padova & M. Rizzardini	1034
Pancreatic Tissue Fluid Pressure during Drainage Operations for Chronic Pancreatitis	N. Ebbehøj, L. Borly, P. Madsen & P. Matzen	1041
Pancreatic Tissue Fluid Pressure in Chronic Pancreatitis. Relation to Pain, Morphology, and Function	N. Ebbehøj, L. Borly, J. Bülow, S. Grønvall Rasmussen, P. Madsen, P. Matzen & A. Øwre	1046
Primary Gastric Non-Hodgkin's Lymphoma in Finland, 1972– 1977. Clinical Presentation and Results of Treatment	N. Jaser, A. Sivula & K. Franssila	1052
Cholecystokinin Is Responsible for Growth of the Pancreas after Pancreaticobiliary Diversion in Rats	T. Gasslander, J. Axelson, R. Håkanson, I. Ihse, I. Lilja & J. F. Rehfeld	1060
Morphine Inhibits Secretion of Bicarbonate from the Human Duodenal Mucosa. Possible Role of Endogenous Opioids in the Regulation of Human Duodenal Mucosal Bicarbonate Secretion	M. A. Ainsworth, J. Kjeldsen & O. B. Schaffalitzky de Muckadell	1066
Reproducibility of Ambulatory Gastric pH Recordings in the Corpus and Antrum. Effect of Food, Time, and Electrode Position	T. Cilluffo, D. Armstrong, F. Castiglione, C. Emde, R. Galeazzi, JJ. Gonvers & A. L. Blum	1076
A Technique for Screening of Achlorhydria and Hypo- chlorhydria during Upper Gastrointestinal Endoscopy	J. Andersen & M. Ström	1084
No. 11		
Vitamin K (Menaquinone-4) Metabolism in Liver Disease	N. Nishimura, Y. Usui,	1089
	N. Kobayashi, T. Okanoue & K. Ozawa	
Evaluation of Pancreatic Tissue Fluid Pressure Measurements Intraoperatively and by Sonographically Guided Fine- Needle Puncture	N. Ebbehøj, L. Borly, J. Bülow, J. H. Henriksen, K. J. Heyeraas & S. Grønvail Rasmussen	1097

P. M. vi. P Different Executes Description Coll	T. Carolander S. Smale	1103
Proliferative Response of Different Exocrine Pancreatic Cell Types to Hormonal Stimuli. I. Effects of Long-Term Ceru- lein Administration	T. Gasslander, S. Smeds, L. Blomqvist & I. Ihse	1103
Proliferative Response of Different Exocrine Pancreatic Cell Types to Hormonal Stimuli. II. Effects of Long-Term Secretin Administration	T. Gasslander, S. Smeds, L. Blomqvist & I. Ihse	1111
A Synthetic Prostaglandin E <sub>2</sub> Analogue, Enprostil, Hastens Gastric Emptying of Solids in Patients with an Active Duo- denal Ulcer	A. Nowak, K. Jonderko, E. Nowakowska-Dulawa, D. Adamczak, J. Rudzka & S. Nowak	1118
Effect of Ranitidine on Gastric and Duodenal Mucosal Enzyme Activities in Duodenal Ulcer Patients	K. Vetvik, E. Schrumpf, KJ. Andersen, D. W. Skagen & O. J. Halvorsen	1123
Influence of Individual Bile Acids in Escherichia coli Per- itonitis	R. Andersson, KG. Tranberg, J. Lillienau, C. Schalén, U. Srinivas, L. Larsson, A. Sonesson & S. Bengmark	1129
Growth Hormone Increases the Mass, the Collagenous Proteins, and the Strength of Rat Colon	H. Christensen, P. Holmberg Jørgensen, H. Oxlund & S. Laurberg	1137
Temporary Cessation of Long-Term Maintenance Treatment with Omeprazole in Patients with H <sub>2</sub> Receptor-Antagonist-Resistant Reflux Oesophagitis. Effects on Symptoms, Endoscopy, Serum Gastrin and Gastric Acid Output	E. C. Klinkenberg-Knol, J. B. M. J. Jansen, C. B. H. W. Lamers, F. Nelis & S. G. M. Meuwissen	1144
Phospholipase Activation and Arachidonic Acid Release in Intestinal Epithelial Cells from Patients with Crohn's Disease	C. Gustafson, R. Sjödahl & C. Tagesson	1151
The Stapled Ileal Pouch-Anal Anastomosis. A Randomized Study Comparing Two Different Pouch Designs	T. Hallgren, S. Fasth, S. Nordgren, T. Öresland & L. Hultén	1161
The Significance of Anti-Hepatitis C Virus Antibodies Measured in Chronic Liver Disease	E. Schrumpf, K. Elgjo, O. Fausa, G. Haukenes, D. Kvale & H. Rollag	1169
Autoimmune Chronic Active Hepatitis: Changing Reactivity for Antibodies to Hepatitis C Virus after Immuno- suppressive Treatment	R. Schvarcz, M. von Sydow & O. Weiland	1175
Identification of the Pylorus from the Intraluminal pH Profile.  Validation of the Method by Comparing It with Transpyloric Potential Difference and Pressure Profile	B. Rosenkilde-Gram, L. Højgaard, K. Kraglund & S. J. Rune	1181
No. 12		
Review: Progastrin in Pancreas and the Zollinger-Ellison Syndrome	L. Bardram	1185
Measurements of Unsaturated Vitamin B <sub>12</sub> -Binding Capacity and Myeloperoxidase as Indices of Severity of Acute Inflammation in Serial Colonoscopy Biopsy Specimens from Patients with Inflammatory Bowel Disease	V. S. Chadwick, M. M. T. Schlup, D. M. Ferry, A. R. Chang & T. J. Butt	1196
Flash Visual Evoked Responses in the Early Encephalopathy of Chronic Liver Disease	M. G. Davies, M. J. Rowan & J. Feely	1205
Gastroduodenal Lesions Induced by Naproxen. An Endo- scopic Evaluation of Regional Differences and Natural Course	L. Aabakken & M. Osnes	1215
Risk of Gastric Cancer in Patients with Non-Surgically Treated Peptic Ulcer	S. Lee, M. Iida, T. Yao, S. Shindo, Y. Nose, K. Akazawa, H. Okabe &	1223

Effect of Gemfibrozil Administration on Biliary Lipid Se-G. Mazzella, F. Bazzoli, 1227 cretion in Hyperlipidemic Patients. A Crossover Study N. Villanova, P. Simoni, with Clofibrate D. Festi, A. Roda, R. Aldini & E. Roda Back Pain and Spinal Pathology in Patients with Functional L. S. Jørgensen & J. Fossgreen 1235 Upper Abdominal Pain Enhanced Release of Cholecystokinin by Soya-Bean Trypsin M. Furuse, S.-I. Yang, 1242 T. Muramatsu & J. Okumura Inhibitor in Chickens S. Åkervall, S. Nordgren, The Effects of Age, Gender, and Parity on Rectoanal Func-1247 S. Fasth, T. Öresland, tions in Adults K. Pettersson & L. Hultén I. S. Menzies, A. P. Jenkins, The Effect of Poorly Absorbed Solute on Intestinal Absorp-1257 E. Heduan, S. D. Catt, M. B. Segal & B. Creamer Dose-Dependent Effects of Glycine, Alanine, and Glucose Ø. Mathisen & E. Omland 1265 on Hepatic Bile Secretion, Oxygen Consumption, and Hemodynamics Pancreatic Lysosomal Enzyme Secretion Is Changed by Hepa-T. Hirano, T. Manabe & 1274 tectomy in Rats T. Tobe Index for Volume 25, 1990